

**Computing in Indian languages**

1299. SHRI SATISH PRADHAN: Will the Minister of INFORMATION TECHNOLOGY be pleased to state:

(a) whether Government are considering for promotion, expansion and propagation of computing in Indian languages in the country; and

(b) if so, the details thereof alongwith the steps taken or proposed to be taken for encouraging use of computer in a big way particularly in rural areas and small towns?

THE MINISTER OF INFORMATION TECHNOLOGY (SHRI PRAMOD MAHAJAN): (a) Yes, Sir.

(b) Thirteen Resource Centers have been set up by Ministry of Information Technology for promoting applications of computers in Indian languages with the following objectives:

- \* To act as a repository of all knowledge tools and products concerned with computer processing of Indian Languages. \*\*
- \* To develop the methodologies and tools for seamless integration of language processing tools with existing and evolving software development environment.
- \* To network with Centres concerned with computer processing of Indian Languages and potential user agencies.
- \* To create content and databases on the resource information available in Indian Languages on Web. Also to work with local News Papers & to encourage them for making them available on line.
- \* To create awareness and organize training programmes in the field of natural language processing.
- \* To facilitate language technology reserach in Machine Aided Translation, Optical Character Recognition, Text-to speech and speech Recognition, etc.
- \* To organize IT localization clinics for small business to provide consultancy on use of Indian language tools in developing IT solutions and to take up development of requisite niche technologies.
- \* To interact with State Governments for e-governance, e-healthcare, e-education etc.

*Resource Centres and Associated Languages*

- \* Indian Institute of Technology, Kanpur (Hindi, Nepali)
- \* Indian Institute of Technology, Mumbai (Marathi, Konkani)
- \* Indian Institute of Technology, Guwahati, (Assamese, Manipuri)
- \* Indian Institute of Science, Bangalore, (Kannada, Sanskrit, Cognitive Models)
- \* Indian Statistical Institute, Kolkata, (Bengali)
- \* Jawaharlal Nehru University, New Delhi (Sanskrit Language Learning Systems)
- \* University of Hyderabad, Hyderabad (Telugu)
- \* Anna University, Chennai (Tamil)
- \* MS University, Baroda (Gujarati)
- \* Utkal University, Orissa & Orissa Computer Application Centre (OCAC), (Oriya)
- \* Thapar Institute of Engg. & Tech., Patiala (Punjabi)
- \* ER&DCI, Trivandrum, (Malayalam)
- \* C-DAC, Pune, (Urdu, Sindhi, Kashmiri)

Further computerized text transcription to Braille has been developed for visually impaired students. Here computer text written in all major Indian Languages is translated to the corresponding "Bharthi Braille" and then it is printed. Such systems have already been installed in blind schools of Assam, Mizoram, Sikkim and West Bengal.

**Export of Software**

1309. SHRI B.J. PANDA: Will the Minister of INFORMATION TECHNOLOGY be pleased to state:

(a) the countries to which software was exported during the last year and the revenue collected as a result thereof;

(b) the number of IT companies presently registered in the country and an A,B,C, analysis of such companies so far as attributing export is concerned; and